

In the Claims:

1. (Currently amended) A surface-mountable miniature luminescent diode and/or photodiode with a chip package which has a leadframe (16), and a semiconductor chip (22) which is arranged on the leadframe (16) and is in electrical contact with it and which contains an active, radiation-emitting and/or radiation-receiving region, ~~characterized in that~~ wherein the leadframe (16) is formed by a flexible multi-layered sheet (12, 14).
2. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 1, ~~characterized in that~~ wherein the flexible multi-layered sheet (12, 14) comprises a metal foil (12) and a plastic film (14) arranged on the metal foil and connected to it.
3. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 2, ~~characterized in that~~ wherein the plastic film (14) is adhesively bonded to the metal foil (12).
4. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 2 or 3, ~~characterized in that~~ wherein the metal foil (12) comprises a first chip connection region (18) and a second chip connection region (20), and in that the plastic film has openings (34, 36) in the regions arranged on these chip connection regions (18, 20).

5. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 4, ~~characterized in that~~ wherein the semiconductor chip (22) ~~is arranged with~~ comprises a first contact area (24) on the first chip connection region (18), and ~~is connected with~~ a second contact area (26) coupled to the second chip connection region (20).

6. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 2, ~~one of claims 2 to 5~~, characterized in that wherein the thickness of the metal foil (12) is less than 80  $\mu\text{m}$ , in particular between 30  $\mu\text{m}$  and 60  $\mu\text{m}$  inclusive.

7. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 2, ~~one of claims 2 to 6~~, characterized in that wherein the plastic film is ~~formed by~~ comprises an epoxy resin film (14).

8. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 2, ~~one of claims 2 to 7~~, characterized in that wherein the thickness of the plastic film (14) is less than 80  $\mu\text{m}$ , in particular between 30  $\mu\text{m}$  and 60  $\mu\text{m}$  inclusive.

9. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in ~~one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the semiconductor chip (22) is embedded in an encapsulating material (30).

10. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ the leadframe (16) has footprint dimensions of approximately 0.5 mm × 1.0 mm or less.

11. (Currently amended) The surface-mountable miniature luminescent diode and/or photodiode as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ the luminescent diode (10) has a total thickness of approximately 400 μm or less, preferably of approximately 350 μm or less.

12. (Currently amended) A method for producing a surface-mountable miniature luminescent diode and/or photodiode, ~~in particular as claimed in one of the preceding claims, with the method steps of~~ comprising:

- providing a leadframe from a flexible multi-layered sheet which has a first chip connection region and a second chip connection region;
- providing a semiconductor chip, which contains an active, radiation-emitting region and has a first contact area and a second contact area;

- mounting the semiconductor chip with the first contact area on the first chip connection region of the leadframe;
- connecting the second contact area to the second chip connection region of the leadframe; and
- encapsulating the semiconductor chip with a transparent or translucent encapsulating material.

13. (Currently amended) The method as claimed in claim 12, ~~characterized in that~~ wherein the step of providing a leadframe comprises providing and punching a thin metal foil in order to define the first and second chip connection regions.

14. (Currently amended) The method as claimed in claim ~~12 or~~ 13, ~~characterized in that~~ wherein the step of providing a leadframe comprises providing and punching a thin plastic film in order to define openings for the electrical connection of the semiconductor chip.

15. (Currently amended) The method as claimed in claim 14 ~~claims 13 and 14,~~ ~~characterized in that~~ wherein the step of providing a leadframe comprises the adhesive bonding of the foil and the film.

16. (Currently amended) The method as claimed in claim 12, wherein, ~~one of claims 12 to 15, characterized in that,~~ in the encapsulating step, the encapsulating

material is injection-molded, transfer-molded or sprayed onto the plastic film of the multi-layered sheet

17. (Currently amended) The method as claimed in claim 12, ~~one of claims 12 to 46, characterized in that, wherein,~~ in the encapsulating step, a runner is led through a plurality of chips arranged on the multi-layered sheet.

18. (Currently amended) The method as claimed in claim 12, wherein ~~one of claims 12 to 17, characterized in that~~ the first and second chip connection regions of the leadframe are short-circuited and grounded in the steps of mounting the semiconductor chip, connecting the second contact area and encapsulating the semiconductor chip.

19. (Currently amended) The method as claimed in claim 12, wherein ~~one of claims 12 to 18, characterized in that~~ a plurality of chips arranged on the multi-layered sheet are tested for their functional capability after the encapsulating step and in that, for this purpose, the individual chips are electrically isolated when they are mounted.